

WHAT IS CLAIMED IS:

SUB A12 1 A photodiode comprising a first ² conductive type semiconductor region, and a plurality of second ^W conductive type semiconductor layers formed on a surface of the first conductive type semiconductor region, the first conductive type semiconductor region and the plurality of second conductive type semiconductor layers constituting an optical detection portion for detecting an optical signal and outputting its photoelectric conversion signal, wherein

the surface of the first conductive type semiconductor region between the second conductive type semiconductor layers is removed.

2. A photodiode according to claim 1, wherein a distance between the second conductive type semiconductor layers formed on the surface of the first conductive type semiconductor region is 0.5 to 2 times a width of a depletion layer in a horizontal direction formed by reverse bias application.

3. A photodiode according to claim 1, wherein the surface of the first conductive type semiconductor region between the second conductive type semiconductor layers is removed by a wet etching method.

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